

CLAIMS

What I claim as my invention is:

1. A bone stabilization device for the lamina of the spine after laminoplasty comprising an elongated plate with curvature at the ends of the longitudinal axis, downward for fixation to a lamina and upward for fixation to a facet by means of a screw through bone screw receiving holes at each end of the said plate
2. The bone stabilization device of claim 1 further including:
an appendage on either end perpendicular to the longitudinal plate axis and prior to the curvature at both ends to engage between the lamina and the facet
3. The bone stabilization device of claim 1 further including:
a bone fusion device wherein said plate is attached to the bone fusion device in the middle with the longitudinal plate edges allowing for bone fixation
4. A bone stabilization device of claim 1 wherein said plate has a curved appendage at one end and a straight appendage at the other end perpendicular to the longitudinal plate axis and prior to the curvature at both ends
5. A bone stabilization device of claim 1 wherein said plate has a curved appendage at one end perpendicular to the longitudinal plate axis and prior to the curvature
6. A bone stabilization device of claim 1 wherein said plate has a plurality of bone screw receiving holes throughout the plate
7. A bone stabilization device of claim 1 wherein said device is made from a biocompatible material selected from the group consisting of titanium, titanium alloys,

surgical steel, polymeric material, ceramic material, resorbable material, polyglyconate, and hydroxyapatite

8. A bone fusion device of claim 3 wherein said device is made from either bone, hydroxyapatite or a resorbable material

9. A bone stabilization device for the lamina of the spine after laminoplasty comprising of an elongated plate with bone screw receiving holes at the ends wherein said plate has a downward curvature at both ends to allow for fixation to the lamina via screws

10. The bone stabilization device of claim 9 further including:
a curved appendage in the middle perpendicular to the longitudinal plate axis and prior to the curvature at both ends to secure the lamina

11. The bone stabilization device of claim 9 further including:
a bone fusion device wherein said plate is attached to the bone fusion device in the middle with the longitudinal plate edges allowing for bone fixation via bone fasteners

12. A bone stabilization device of claim 9 wherein said plate has straight appendages in the middle perpendicular to the longitudinal plate axis and prior to the curvature at both ends

13. A bone stabilization device of claim 9 wherein said plate has a plurality of bone screw receiving holes throughout the plate

14. A bone stabilization device of claim 9 wherein said device is made from biocompatible material selected from the group consisting of titanium, titanium alloys, surgical steel, polymeric material, ceramic material, resorbable material, polyglyconate, and hydroxyapatite

15. A bone fusion device of claim 11 wherein said device is made from either bone, hydroxyapatite, or a resorbable material

16. A bone stabilization device of claim 9 further including:

a L-shaped curvature at the end on both sides to allow for fixation to the facets by means of bone fasteners

17. A spacer for the lamina of the spine after laminoplasty comprising of a rectangular shape with concave curved edges contoured at the longitudinal ends to allow for engagement between the lamina

18. A spacer for the lamina of the spine after laminoplasty comprising of a rectangular shape wherein both edges at the end of the longitudinal axis of the said spacer have a superior cuff to allow for engagement between the lamina

19. A spacer of claim 17 wherein said device is made from either bone, hydroxyapatite, or a biocompatible material suitable for bone fusion

20. A spacer of claim 18 wherein said device is made from either bone, hydroxyapatite, or a biocompatible material suitable for bone fusion

21. A method of stabilizing and fusing the reshaped lamina after a laminoplasty comprising the steps of:

displacing the severed edge of a lamina at the junction of the lamina and facet,

providing a spacing means with the edges of the said spacing means contoured to engage the lamina at one end and the facet at the other end, and

a fixation means attached to the said spacing means in the middle with curvatures at both ends in opposing directions allowing bone screw placement through one end of the said

fixation means to the lamina and bone screw placement through the other end of the said
fixation means to the facet

22. A method of stabilizing the reshaped lamina after a laminoplasty comprising the steps
of:

displacing the severed edge of the lamina at the junction of the lamina and facet,
a fixation means comprising of a plate with appendages at either ends prior to the
curvature of the longitudinal axis of the said fixation means to secure the lamina on one
side and the facet on the other and maintain their repositioned shape along with fixation
of the plate to the lamina and facet via bone fasteners

23. A method of stabilizing and fusing the repositioned lamina after a laminoplasty
comprising the steps of:

displacing the severed edges of lamina at the junction of the lamina and facet on both
sides,
providing a spacing means with the edges of the said spacing means contoured to engage
between the lamina and facet on both sides of the vertebra,
a fixation means with the said spacing means attached in the middle contoured to allow
bone screw placement through one end of the said fixation means to the lamina and bone
screw placement through the other end of the said fixation means to the facet on both
sides of the vertebra

24. A method of stabilizing and fusing the reshaped lamina after a laminoplasty
comprising the steps of:

displacing both lamina through severed edges in the middle,

providing a spacing means with the edges of the spacing means contoured to engage the displaced lamina at both ends, and

a fixation means comprising of a plate with the said spacing means attached at the middle of the fixation means and the said fixation means comprising of a curvature at both ends of the longitudinal axis to secure the lamina and/or facets on both sides with bone fasteners

25. A method of stabilizing the reshaped lamina after a laminoplasty comprising the steps of:

displacing both lamina through severed edges in the middle,

providing fixation means comprising of a plate with two appendages perpendicular to the longitudinal axis of the said fixation means spaced apart in the middle to engage the lamina on either side with the said fixation means also comprising of curvatures at both ends to secure the fixation means to the lamina and/or facets on both sides with bone fasteners